

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
18 August 2005 (18.08.2005)

PCT

(10) International Publication Number  
**WO 2005/075392 A3**

(51) International Patent Classification<sup>7</sup>: **C07C 41/06**,  
43/13, 43/178, 29/10, 31/20

(74) Agents: **AOKI, Atsushi** et al.; A. Aoki, Ishida & Associates, Toranomon 37 Mori Bldg., 5-1, Toranomon 3-chome, Minato-ku, Tokyo 1058423 (JP).

(21) International Application Number:  
PCT/JP2005/002089

(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(22) International Filing Date: 4 February 2005 (04.02.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
2004-028732 5 February 2004 (05.02.2004) JP  
2004-028733 5 February 2004 (05.02.2004) JP  
60/543,294 11 February 2004 (11.02.2004) US  
60/543,405 11 February 2004 (11.02.2004) US

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(71) Applicant (*for all designated States except US*): **SHOWA DENKO K.K.** [JP/JP]; 13-9, Shibadaimon 1-chome, Minato-ku, Tokyo 1058518 (JP).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **KIBINO, Nobuyuki** [JP/JP]; c/o Oita Plant, Petrochemicals Sector, Showa Denko K.K., 2, Oaza Nakanosu, Oita-shi, Oita 8700189 (JP). **KADOWAKI, Yasushi** [JP/JP]; c/o Oita Plant, Petrochemicals Sector, Showa Denko K.K., 2, Oaza Nakanosu, Oita-shi, Oita 8700189 (JP). **SAKAI, Masaaki** [JP/JP]; c/o Oita Plant, Petrochemicals Sector, Showa Denko K.K., 2, Oaza Nakanosu, Oita-shi, Oita 8700189 (JP). **HETSUGI, Yukiharu** [JP/JP]; c/o Oita Plant, Petrochemicals Sector, Showa Denko K.K., 2, Oaza Nakanosu, Oita-shi, Oita 8700189 (JP).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:  
17 November 2005

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: PRODUCTION PROCESS OF 3-ALKOXY-1-PROPANOLS, AND 3-ALKOXY-1-PROPANOLS OBTAINED BY THE PRODUCTION PROCESS

(57) Abstract: In the presence of a catalyst containing at least one element selected from the group consisting of elements of the group III, lanthanoid elements and actinoid elements of the Periodic Table, an allyl alcohol is reacted with an alcohol compound. A method for efficiently producing 3-alkoxy-1-propanol in a single step using an alcohol as a starting material is provided.



WO 2005/075392 A3